

## ABSTRACT

Equipment enables an improved efficiency in network bandwidth usage, and an improved upper-layer throughput even when abrupt change occurs in input traffic. The  
5 equipment includes an input traffic collector which collects and retains an input traffic amount of each input port for one period at preset periods; a bandwidth set processor which calculates a bandwidth for use in each input port from the input traffic amount retained in the input  
10 traffic collector, and calculates the corresponding number of virtual concatenation member paths from the difference of the bandwidth in use and a virtual concatenation path bandwidth having been allocated to the input port, and issues an addition command or a deletion command for adding  
15 or deleting the virtual concatenation member paths for the calculated number; a virtual concatenation controller which sets a virtual concatenation path bandwidth against the traffic input from the plurality of ports; and a link capacity adjustment scheme controller which sets and  
20 changes the virtual concatenation to the virtual concatenation controller, based on the addition command or the deletion command of the virtual concatenation member paths issued by the bandwidth set processor.